

Amendment and Response

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Serial No.: 09/600,432

Confirmation No.: 3387

Filed: October 2, 2000

For: PEPTIDES WITH $\beta 1$ INTEGRIN SUBUNIT DEPENDENT CELL ADHESION MODULATING ACTIVITY

Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the above-identified application:

1. (canceled)
2. (canceled)
3. (canceled)
4. (canceled)
5. (canceled)
6. (currently amended) A peptide of no more than about six amino acid residues, said peptide having the sequence Pro-Arg-Ala-Arg-Ile-Tyr (SEQ ID NO:24), Arg-Ala-Arg-Ile-Tyr (SEQ ID NO:25), Ala-Arg-Ile-Tyr (SEQ ID NO:26), or Arg-Ile-Tyr.
7. (currently amended) The peptide of claim 6 wherein said peptide [[is capable of modulating]] modulates $\beta 1$ integrin subunit dependent adhesion.
8. (currently amended) The peptide of claim 7 wherein said peptide [[is capable of inhibiting]] inhibits $\beta 1$ integrin subunit dependent adhesion.
9. (currently amended) The peptide of claim 7 wherein said peptide [[is capable of modulating]] modulates $\alpha 4\beta 1$ integrin dependent adhesion.
10. (currently amended) The peptide of claim 9 wherein said peptide [[is capable of inhibiting]] inhibits $\alpha 4\beta 1$ integrin dependent cell adhesion.

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11. (currently amended) The peptide of claim 10 wherein said peptide [[is capable of inhibiting]] inhibits $\alpha 4\beta 1$ integrin dependent adhesion of Ramos cells to $\alpha 4\beta 1$ integrin binding fibronectin fragments.
12. (canceled)
13. (canceled)
14. (canceled)
15. (canceled)
16. (canceled)
17. (canceled)
18. (canceled)
19. (canceled)
20. (canceled)
21. (canceled)
22. (canceled)
23. (previously presented) A method for modulating the adhesion of cells to a substrate, the method comprising:
 - combining a peptide of claim 6 with a suspension of said cells to form a modified cell suspension; and
 - contacting the modified cell suspension with the substrate.
24. (previously presented) A method of claim 23 wherein the peptide modulates $\beta 1$ integrin subunit dependent adhesion.
25. (previously presented) The method of claim 24 wherein the peptide inhibits $\beta 1$ integrin subunit dependent adhesion.

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26. (previously presented) The method of claim 25 wherein the $\beta 1$ integrin is $\alpha 4\beta 1$.
27. (previously presented) The method of claim 24 wherein the $\beta 1$ integrin is $\alpha 4\beta 1$.
28. (previously presented) A method of inhibiting $\alpha 4\beta 1$ integrin dependent adhesion of cells to integrin-binding fibronectin fragments, the method comprising:
combining a peptide of claim 6 with the cells to form a modified cell suspension; and
contacting the modified cell suspension with the integrin-binding fibronectin fragments.
29. (new) A peptide consisting of the sequence Pro-Arg-Ala-Arg-Ile-Tyr (SEQ ID NO:24), Arg-Ala-Arg-Ile-Tyr (SEQ ID NO:25), Ala-Arg-Ile-Tyr (SEQ ID NO:26), or Arg-Ile-Tyr.
30. (new) A peptide of no more than about ten amino acid residues, said peptide having the sequence Pro-Arg-Ala-Arg-Ile-Tyr (SEQ ID NO:24), Arg-Ala-Arg-Ile-Tyr (SEQ ID NO:25), Ala-Arg-Ile-Tyr (SEQ ID NO:26), or Arg-Ile-Tyr.
31. (new) A peptide of no more than about 25 amino acid residues, said peptide having the sequence Pro-Arg-Ala-Arg-Ile-Tyr (SEQ ID NO:24), Arg-Ala-Arg-Ile-Tyr (SEQ ID NO:25), Ala-Arg-Ile-Tyr (SEQ ID NO:26), or Arg-Ile-Tyr, wherein said peptide modulates $\beta 1$ integrin subunit dependent adhesion.
32. (new) A peptide of no more than about 50 amino acid residues, said peptide having the sequence Pro-Arg-Ala-Arg-Ile-Tyr (SEQ ID NO:24), Arg-Ala-Arg-Ile-Tyr (SEQ ID NO:25), Ala-Arg-Ile-Tyr (SEQ ID NO:26), or Arg-Ile-Tyr, wherein said peptide modulates $\beta 1$ integrin subunit dependent adhesion.
33. (new) A peptide of up to about 100 amino acid residues, said peptide having the sequence Pro-Arg-Ala-Arg-Ile-Tyr (SEQ ID NO:24), Arg-Ala-Arg-Ile-Tyr (SEQ ID NO:25), Ala-Arg-Ile-Tyr

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(SEQ ID NO:26), or Arg-Ile-Tyr, wherein said peptide modulates $\beta 1$ integrin subunit dependent adhesion.

34. (new) The peptide of claim 33 wherein said peptide inhibits $\alpha 4 \beta 1$ integrin dependent adhesion of Ramos cells to $\alpha 4 \beta 1$ integrin binding fibronectin fragments.

35. (new) A peptide having the sequence Pro-Arg-Ala-Arg-Ile-Tyr (SEQ ID NO:24), Arg-Ala-Arg-Ile-Tyr (SEQ ID NO:25), Ala-Arg-Ile-Tyr (SEQ ID NO:26), or Arg-Ile-Tyr, wherein said peptide modulates $\beta 1$ integrin subunit dependent adhesion.

36. (new) The peptide of claim 35 wherein said peptide inhibits $\alpha 4 \beta 1$ integrin dependent adhesion of Ramos cells to $\alpha 4 \beta 1$ integrin binding fibronectin fragments.